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Research Article

PERFORMANCE STATUS IN HEAD & NECK CANCER PATIENTS FOLLOWING TREATMENT- A HOSPITAL BASED STUDY

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ABSTRACT

Aims & Objectives: to evaluate performance status of head & neck cancer patients after receiving treatment. **Material And Methods:** The present study was conducted in the Department of ENT, SMGS Hospital, GMC Jammu on 100 patients from a period of January 2018 to June 2019. Inclusion criteria in our study were patients with pathologically diagnosed head & neck cancer, age >40 years, pre-treatment performance score > or equal to 80 (Karnofsky scale). Exclusion criteria in our study were patients with mental illness, patients with distant metastasis, patients who underwent surgery for primary site of disease, patients with age >80 years. Performance status of all patients was assessed using karnofsky performance status scale – before starting treatment, at completion of treatment and 6 months after completion of treatment. **Results:** According to Karnofsky performance scale index, at completion of treatment- 52% patients showed a score of 60, 33% showed a score of 70 and 3% showed a score of 50, 10% showed a score of 40 and 2 patients died during the completion of treatment. After 6 months of completion of treatment, 48% showed a score of 70, 23% showed a score of 80, 19% showed a score of 90, 7% showed score of 50, 2% showed score of 40 and 1 patient had died during these six months. **Conclusion:** From our study we can conclude that there is an association between poor performance status, tumour stage and dysphagia.

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INTRODUCTION

For patient and their carers, quality of life following head and neck cancer is a crucially important issue. The treatment of head neck cancer is more than cure and survival. The cancer and its treatment affect functions that are integral to human existence – communication, eating, socialisation and interpersonal contacts.[1]

Quality of life is a concept that has become increasingly important in relation to patient outcomes following treatment for cancer.

There are various definitions for quality of life. Quality of life is defined by World Health Organisation as an individual's perceptions of their position in life taken in the context of the culture and value systems in which they live and in relation to their goals, standards and concerns.[2]

Quality of life is not a single entity which can be simply measured, it is not absolute or static, but relative and variable. The term health related quality of life is preferred over quality of life as it only focusses on the health status and disease related issues such as symptoms and functions.

Due to the anatomic complexity and functional importance of head neck region, patients of head and neck cancer face multiple challenges pre and post treatment such as dysphagia, pain, xerostomia, dietary restrictions and physical restrictions. Therefore, apart from survivorship, the assessment of health-related quality of life has become imperative for optimum patient centred decision making.

Patient performance status is an important part of cancer care and treatment. It plays a role in determining prognosis and appropriate treatment for cancer. Performance status is a score that estimates the patient's ability to perform activities of daily living (eating, getting dressed, cleaning house, doing regular job) without help of others.[3]

The aim of our study is to evaluate performance status of head & neck cancer patients after receiving treatment.

MATERIAL AND METHODS

The present study was conducted in the Department of ENT, SMGS Hospital, GMC Jammu on 100 patients from a period of January 2018 to June 2019.

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Inclusion criteria in our study were patients with pathologically diagnosed head & neck cancer, age >40 years, Pre-treatment performance score > or equal to 80 (Karnofsky scale) Exclusion criteria in our study were patients with mental illness, patients with distant metastasis, patients who underwent surgery for primary site of disease, patients with age >80 years.

All patients were subjected to relevant clinical history, general physical examination and local neck examination. All patients were subjected to indirect laryngoscopy and fibreoptic laryngoscopy. All patients were subjected to routine laboratory investigations, X-ray Chest, Ultrasound abdomen, CECT neck and FNAC of palpable lymph node (if any) In all patients, direct laryngoscopy was performed and biopsy was taken from primary site and sent for histopathological examination.

All patients, after pathological confirmation of malignancy, were subjected to radiotherapy (external beam radiotherapy 70 Gy for 7 weeks) or concurrent radio-chemotherapy (cisplatin/ 5-flourouracil).

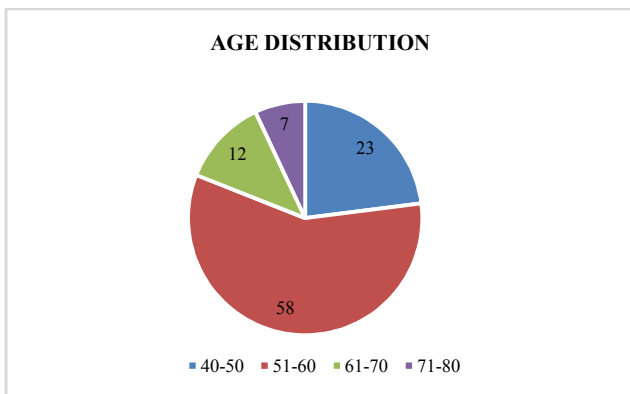
Performance status of all patients was assessed using Karnofsky Scale – before starting treatment, at completion of treatment and 6 months after completion of treatment.

Table 1. Karnofsky Performance Scale Index (KPS)

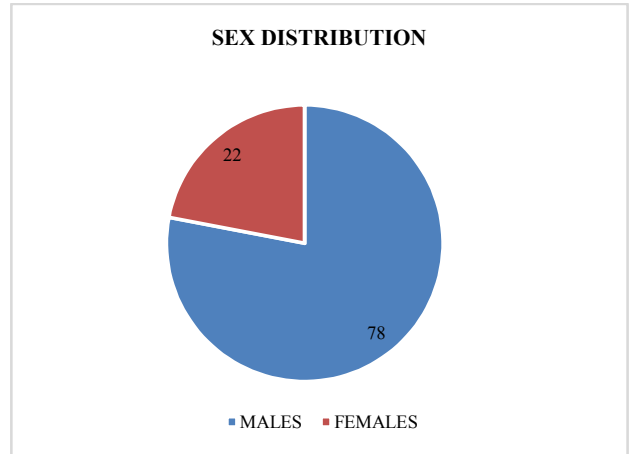
Score (category)	Karnofsky
100	Normal; no complaints; no evidence of disease.
90	Able to carry on normal activity; minor signs or symptoms.
80	Normal activity with effort; some signs or symptoms of disease.
70	Care for self; unable to carry on normal activity or to do active work.
60	Requires occasional assistance but is able to care for most of his needs.
50	Requires considerable assistance and frequent medical care.
40	Disabled; requires special care and assistance.
30	Severely disabled; hospitalization necessary; active supportive treatment is necessary.
20	Very sick; hospitalization necessary; active supportive treatment is necessary.
10	Moribund; fatal processes progressing rapidly.
0	Dead.

RESULTS

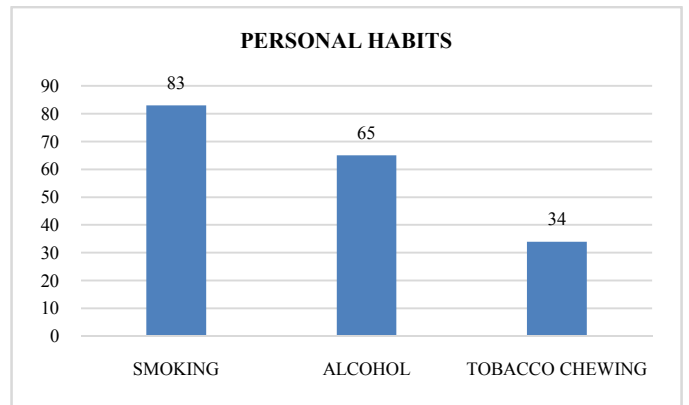
The majority of patients belonged to the age group of 60-70 years, with mean age being 62.3 years.



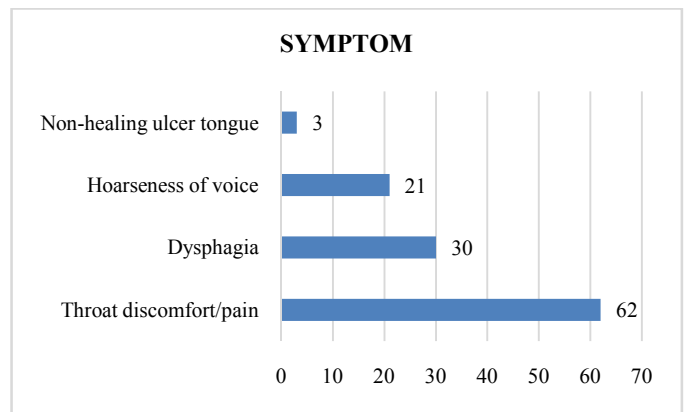
Out of 100 patients, 78 were males and 22 were females.



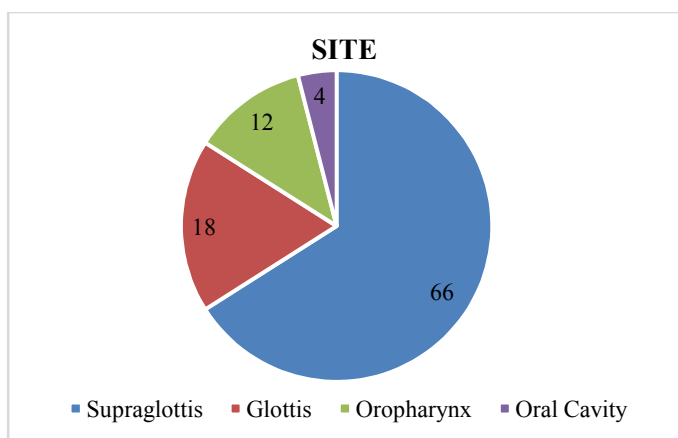
Out of 100 patients, 83 patients gave history of smoking (83%), 65 patients gave history of alcohol intake (65%), 34 patients gave history of tobacco chewing (34%).



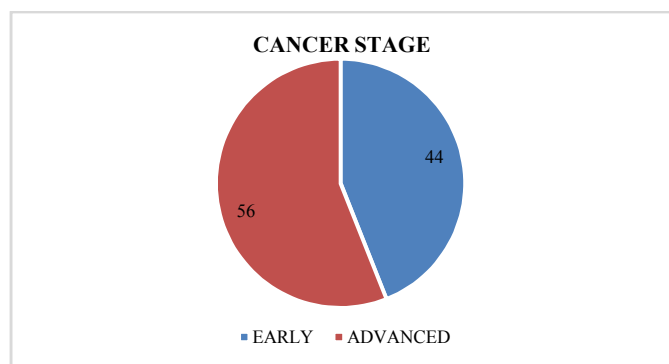
Out of 100 patients, the most common presenting complaint was throat discomfort and pain (62%), dysphagia (30%), hoarseness of voice (21%), non healing ulcer on tongue (3%).



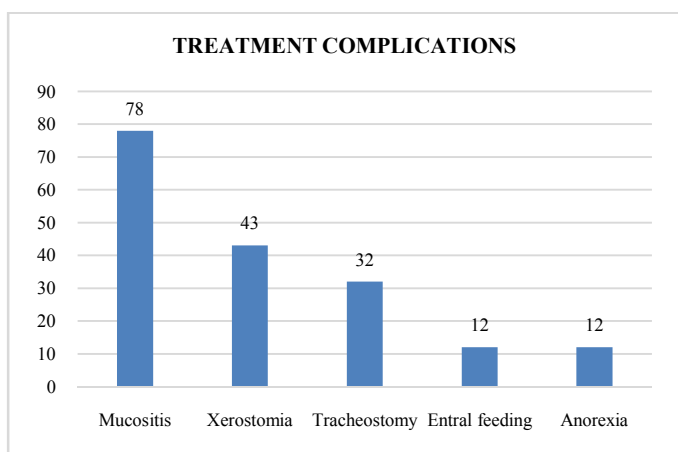
The most common primary site of cancer was supraglottis (66%), followed by glottis (18%), oropharynx (12%) and oral cavity (4%).



Out of 100 patients, 56 were in advanced cancer stages (stage III and IV) and 44 in early stages (stage I and II)



During treatment, out of 100 patients- 78% developed mucositis, 43% developed xerostomia, 32% required tracheostomy, 12% required enteral feeding, 12% developed anorexia.



According to Karnofsky performance scale index, at completion of treatment- 52% patients showed a score of 60, 33% showed a score of 70 and 3% showed a score of 50, 10% showed a score of 40 and 2 patients died during the completion of treatment.

Number of patients (%)	Karnofsky Score (Completion of Treatment)
52	60
33	70
3	50
10	40
2	0

After 6 months of completion of treatment, 48% showed a score of 70, 23% showed a score of 80, 19% showed a score of 90, 7% showed score of 50, 2% showed score of 40 and 1 patient had died during these six months.

Number of Patients	Karnofsky Score (6 Months After Completion Of Treatment)
48	70
23	80
19	90
7	50
2	40
1	0

DISCUSSION

In Head and Neck cancers, a reduction in function is generally related to the cumulative physiological and psychological effects of the malignancy. As with other types of human cancer, most patients with advanced disease experience a prolonged period (months-years) of gradual decline of function, before a short phase of accelerated decline (1-2 months).[4] Patients of head neck cancer require an evaluation of relevant parameters of functional status, in order to achieve an effective assessment of treatment, rehabilitation and survival outcomes.[5]

There are many factors that can predict whether someone is likely to do well or poorly with their disease. Age, stage of cancer and other illnesses all affect prognosis, but performance status scale is one of the most important variables.

Patients who have a worse performance status scale tend to have more difficulty tolerating rigorous cancer treatments. These patients have less favourable outcomes than more fit patients with better performance status scale, regardless of treatment given.[3]

Karnofsky performance status scale is widely used to describe the status of symptoms and functions of cancer patients, with respect to ambulatory status and need for care. The scale evaluates the progression of malignant disease, assesses how malignancy affects activities of daily living of patients and can also help to determine appropriate treatment modality.

The majority of patients belonged to the age group of 60-70 years, with mean age being 62.3 years. Out of 100 patients, 78 were males and 22 were females. Out of 100 patients, 83 patients gave history of smoking (83%), 65 patients gave history of alcohol intake (65%), 34 patients gave history of tobacco chewing (34%).

Out of 100 patients, the most common presenting complaint was throat discomfort and pain (62%), dysphagia (30%), hoarseness of voice (21%), non-healing ulcer on tongue (3%). Due to pain in throat and dysphagia, patients exhibit social isolation and avoid eating with others, leading in turn to malnutrition, which eventually causes weight loss, decreased activity and lethargy. The earliest indicator of malnutrition is involuntary loss of body weight, which is frequently underestimated or ignored.

The most common primary site of cancer was supraglottis (66%), followed by glottis (18%), oropharynx (12%) and oral cavity (4%). Out of 100 patients, 56 were in advanced cancer stages (stage III and IV) and 44 in early stages (stage I and II).

Patients with advanced stage disease showed poor performance status score post treatment.

During treatment, out of 100 patients- 78% developed mucositis, 43% developed xerostomia, 32% required tracheostomy, 12% required enteral feeding, 12% developed anorexia. Due to mucositis, patient's oral intake compromised, leading to further weight loss. Due to tracheostomy, communication function of the patient is altered, leading again to social isolation. Due to tracheostomy and enteral feeding, patient becomes dependant on nursing care.

According to Karnofsky performance scale index, at completion of treatment- 52% patients showed a score of 60, 33% showed a score of 70 and 3% showed a score of 50, 10% showed a score of 40 and 2 patients died during the completion of treatment. After 6 months of completion of treatment, 48% showed a score of 70, 23% showed a score of 80, 19% showed a score of 90, 7% showed score of 50, 2% showed score of 40 and 1 patient had died during these six months.

CONCLUSION

The performance status is variable, thus can change over time. There can be gradual worsening of score as the cancer progresses, due to cancer itself or adverse effects of treatment employed. However, performance status score can improve also, if the cancer related symptoms improve with treatment. From our study we can conclude that there is an association between poor performance status, tumour stage and dysphagia.

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